



## Mesuring Health literacy among French pupils with the HLS-Child-Q15

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## INTRODUCTION

"Health Literacy empowers, drives equity and must be an integral part of the skills, and competencies developed over a lifetime, first and foremost through the school curriculum." (WHO, 2017)

No tool measuring Health literacy by 8- to11-year-old children validated in French.

## OBJECTIVES

This study aimed to:

- 1 Translate, adapt
- 2 Test

a short scale HLS-Child-Q15 (Bollweg and al. 2020) developed to assess generic, self-reported, health literacy among French-speaking 8-to11-year-old children.

HLS-Child-Q15 → HLS-Child-Q15-FR



This measure of children's health literacy is subjective.

## SAMPLE AND DATA COLLECTION

Data among **3 107 pupils** enrolled in **74 elementary schools**

Between october 2019 and March 2020

Read of HLS-Chid-Q15-FR : 5 minute

Data collection : **Alliance project** (Health Literacy / Perceived self-efficacy / Demographic variables)

Contact information,  
Please scan me



## 1 TRANSLATION AND ADAPTATION OF THE SCALE

### 1 TRANSLATION

### METHODS

- Translation of the HLS-Child-Q15 from German to French (French native speaker + translation professional)
- 2 back-translation from French to German (1 German native speaker + 1 translation professional)
- Discussion of both phrasing

### RESULTS

Minor refinements

### 2 QUALITATIVE PRETEST

Among a small group of similar age-range (8- to 11-year-old) children in a socially disadvantaged community center to ensure accessibility

6 children : modification of grammatical structures

### 3 RESEARCH TEAM MEETING

To discuss translations, to assess the scale's content and to make the contextual adjustments based on children's feedbacks

Simplication complex wordings

### 4 EXTERNAL REVIEWING

Partner research team in educational sciences

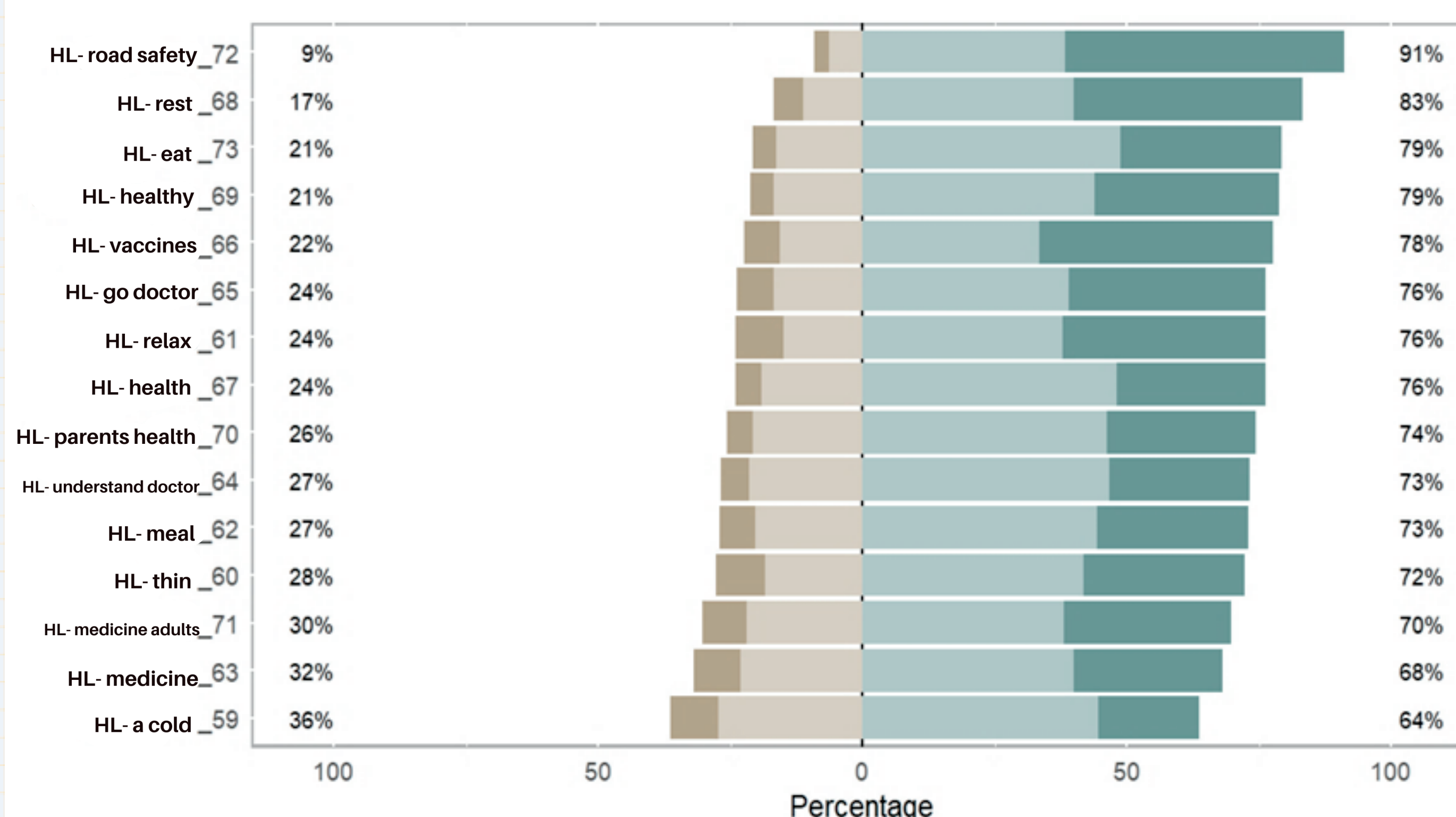
Few rewordings

## 2 VALIDATION OF THE SCALE

### ITEM ANALYSIS

- Missing answers : [2% - 6%] < 10%
- Item difficulty : [57% for Q59 - 80% for Q72]
- Variance : [0.72 - 0.94]
- Corr. ITC : [0.34 for Q61 - 0.6& for Q69]
- Corr. ITC > 0.5 for Q62, Q67, Q69, Q70

1 = very difficult,  
2 = difficult,  
3 = easy,  
4 = very easy



Graphical representation of the distribution of items' responses

### CONSTRUCT VALIDITY : EFA

Models' fit indices

Model	Factors	Items	$\chi^2$ (pvalue)	Df	TLI (>0.90)	CFI (>0.90)	RMSEA (<0.05)	SRMR (<0.05)	AIC	BIC
A (15)	Health literacy	59 - 73	644 (p < 0.01)	90	0.89	0.91	0.045 (p = 0.999)	0.037	106645.1	106916.6
B (15)	Healthcare Primary prevention	59,63,64,65,66,67,68,70,71,72 60,61,62,69,73	440 (p < 0.01)	88	0.93	0.94	0.036 (p > 0.999)	0.030	106374.7	106658.2
C (15)	Healthcare Primary prevention Promotion	59,63,64,65,66,67,70,71 60,62,69,73 61,68,72	421 (p < 0.01)	87	0.93	0.95	0.035 (p > 0.999)	0.029	106342.1	106631.7
D (12)	Healthcare Primary prevention	59,63,64,65,66,67,70,71 60,62,69,73	299 (p < 0.01)	52	0.94	0.95	0.039 (p > 0.999)	0.030	85295.6	85524.9
E (15)	Access Understand Apply	59,60,61,62 63,64,65,66,67,68 69,70,71,72,73	611 (p < 0.01)	87	0.90	0.91	0.044 (p > 0.999)	0.036	106600.9	106737.9

## CONCLUSION

Statistics showed a high internal consistency. The exploratory factor analysis suggested a two-dimensional thematic scale related to healthcare and primary prevention. Several indicators also suggested that the scale could be reduced to 12 items.

## REFERENCES

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HLS-Child-Q15-FR   2022 by Marine C cile Genton (PhD), Boris Chapoton (MPh), Sali Mohammed Dauda (MSc), Mathieu Oriol (MD) , V ronique Regnier Denois (PhD), Franck Chauvin (MD-PhD) is licensed under Attribution-NonCommercial-NoDerivatives 4.0 International

